

**4162**

**G-000-1005.61**

**FERNALD COMMUNITY MEETING FEBRUARY 23, 1993**

**02/23/1993**

**DOE-FN**

**40**

**OVERHEADS**

**PUBLIC**



**FERNALD**  
Environmental Management Project

# **Community Meeting**

**February 23, 1993**

**6:00 - 7:00 p.m. Exhibits**

**7:00 - 9:30 p.m. Group Meeting**

Welcome / Public Issues\_\_\_\_\_Ken Morgan  
DOE Field Office Overview\_\_\_\_\_Jim Fiore  
New Acting Manager\_\_\_\_\_Tom Rowland  
FERMCO Update\_\_\_\_\_Nick Kaufman  
Waste & Materials Shipment /  
Safe Shutdown\_\_\_\_\_Ray Hansen  
Status of Cleanup\_\_\_\_\_Jack Craig  
Annual Site Environmental  
Report for Calendar Year 1991\_\_\_\_\_Wally Quaider

**Public Forum\_\_\_\_\_Ken Morgan**

U.S. EPA Comments  
Ohio EPA Comments  
FRESH Comments

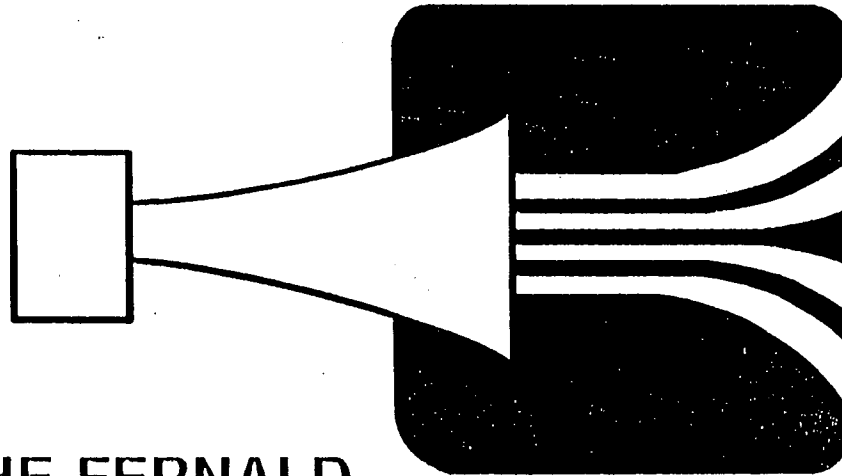
**Group Questions  
and Answers**

Exhibits will reopen after the meeting.



# **FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

- **Siren System**
- **Public Water**
- **Community Environmental Course**



**THE FERNALD  
EMERGENCY & SEVERE WEATHER  
WARNING SYSTEM**

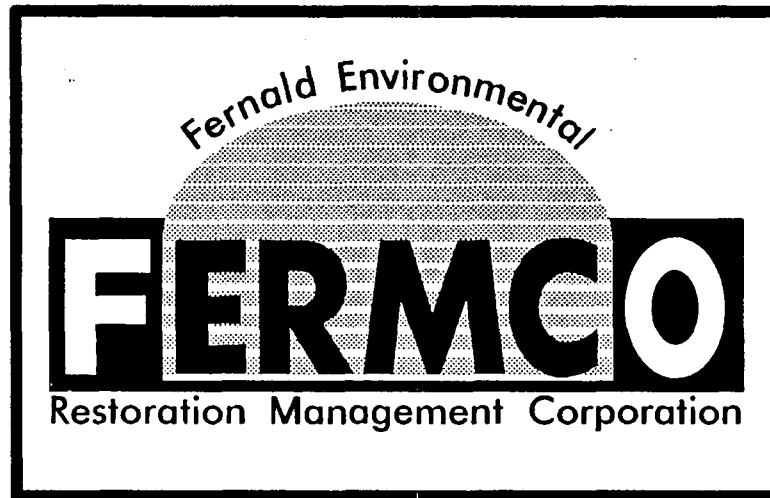


**FERNALD**

Environmental Management Project

# **FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

- **Oak Hills Award**
- **Risk Roundtable**
- **Fernald Advisory Committee**



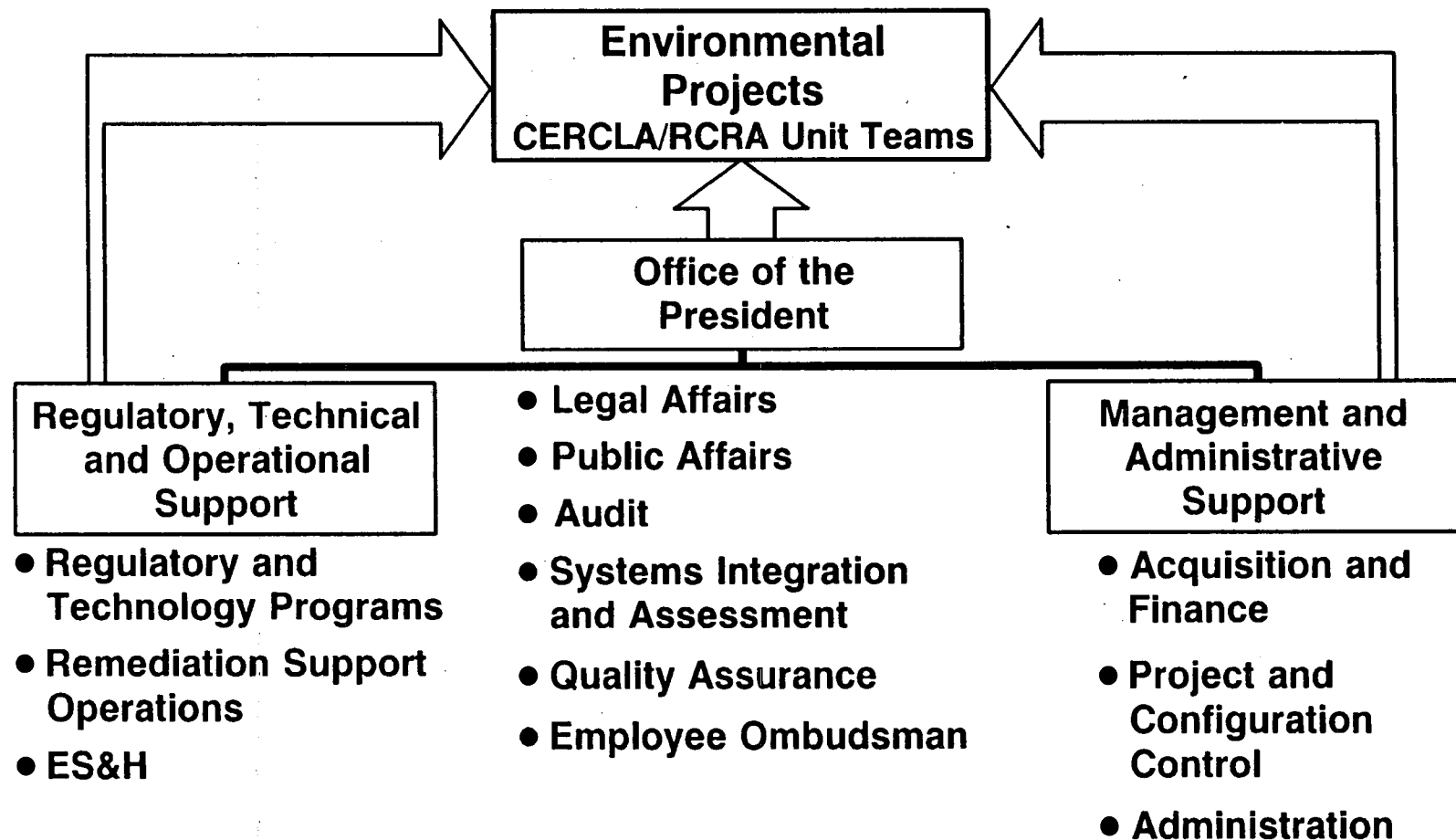
# FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION

Graphics 2009.21 2/93

# **FERMCO TRANSITION OBJECTIVES**

- **Listen, Learn, Refine Proposal Concepts**
- **Develop and Staff New Corporation**
- **Assume Contracts, Implement Prime Contract Provisions**
- **Determine Status of Systems, Procedures, Cost/Schedule/Regulatory Baselines**
- **Prepare to Manage to Regulations, DOE Orders, Commitments**
- **Create Support Climate with Employees, DOE, Regulators, Stakeholders**
- **Launch Improvement Initiatives**

# FERMCO CONCEPT OF ORGANIZATION





# **INITIATIVES**

- **Implement New ES&H Program**
- **Refocus Training**
- **Replan Space and Introduce New Systems**
- **Set Lab Strategy**

# **INITIATIVES (Cont'd)**

- **Restore and Enhance CERCLA/RCRA Compliance; Develop Workarounds on Problems**
- **Initiate Strategic Regulatory Effort**
- **Accelerate Property Disposition**
- **Accelerate Waste Removal**

# **FERMCO 5-YEAR VISION**

- **FERMCO Succeeding as a Team**
- **Worker and Public Health and Safety Protected**
- **One Year Ahead of Consent Agreement**
- **\$300 Million Saved Against 1992 Forecast**
- **Strategic Questions Answered**
- **New Approaches Succeeding**
- **Cooperation Among DOE, Regulators, Public, Officials**

# **SAFE SHUTDOWN**

- **Production Equipment**
- **Materials Disposition**
- **Thorium**
- **Waste Shipments**
- **Other Waste Disposal**

# **PRODUCTION EQUIPMENT**

- **Plant by Plant Assessment**
  - **Plant 4 Complete**
  - **Plant 1 in Progress**
    - \* **Maintenance Scheduled for Utility Disconnects**
    - \* **Hold-Up Material Removal Being Scheduled**

# **MATERIALS DISPOSITION**

## **Problem**

- **20,000 Drums of Low Enriched Residues**
  - **NTS Requires “No Free-Standing Liquids”**
  - **Free Metals Must be Oxidized**
  - **Enriched Materials Cannot be Processed by Commercial Vendors**

# **MATERIALS DISPOSITION (Cont'd)**

## **Alternative Solutions:**

- **Lease/Contract Vendor Dryer/Oxidizer**
- **Lease/Contract Vendor Supercompactor**
- **Permit and Use Existing Rotary Kiln  
as Dryer/Oxidizer**

# **MATERIALS DISPOSITION (Cont'd)**

- **Rotary Kiln**
  - **Will Enable 20,000 Drums of Waste to be Shipped to NTS**



# **MATERIALS REMOVED FROM SITE:**

- **3,353 MTU Shipped Off-Site Since  
the Transfer**

**MTU = metric tonnes uranium**

# **PLANNED MATERIALS REMOVAL FROM SITE (Cont'd)**

- **Complete Transfer of Remaining  
Army Metal**
  - **1,012 MTU to Nevada (March -  
August 1993)**

# **FUTURE MATERIALS REMOVAL FROM SITE (Cont'd)**

## **Future Sales**

- **Normal and Enriched RFP Mailed to 13 Companies 12/23/93 (Responses Received 2/8/93)**
- **Depleted RFP Mailed to 6 Companies 1/15/93 (Responses Due 3/7/93)**

# THORIUM

**Inventory: 1,094 MT at Time of Transition**

- **167 MT Shipped to NTS (Complete 9/30/92)**
- **769 MT to be Shipped by End of FY'94**

# **THORIUM (Cont'd)**

## **Characterization, Stabilization, Overpacking and Shipments:**

- **Characterization:**

- **Out of 10,551 Current Containers, 11 are RCRA (2 remain to be evaluated)**

- **Stabilization (T-2 Tank)**

- **Sampling, Characterization, Preliminary Planning Ongoing**

# **THORIUM (Cont'd)**

- **Overpacking**

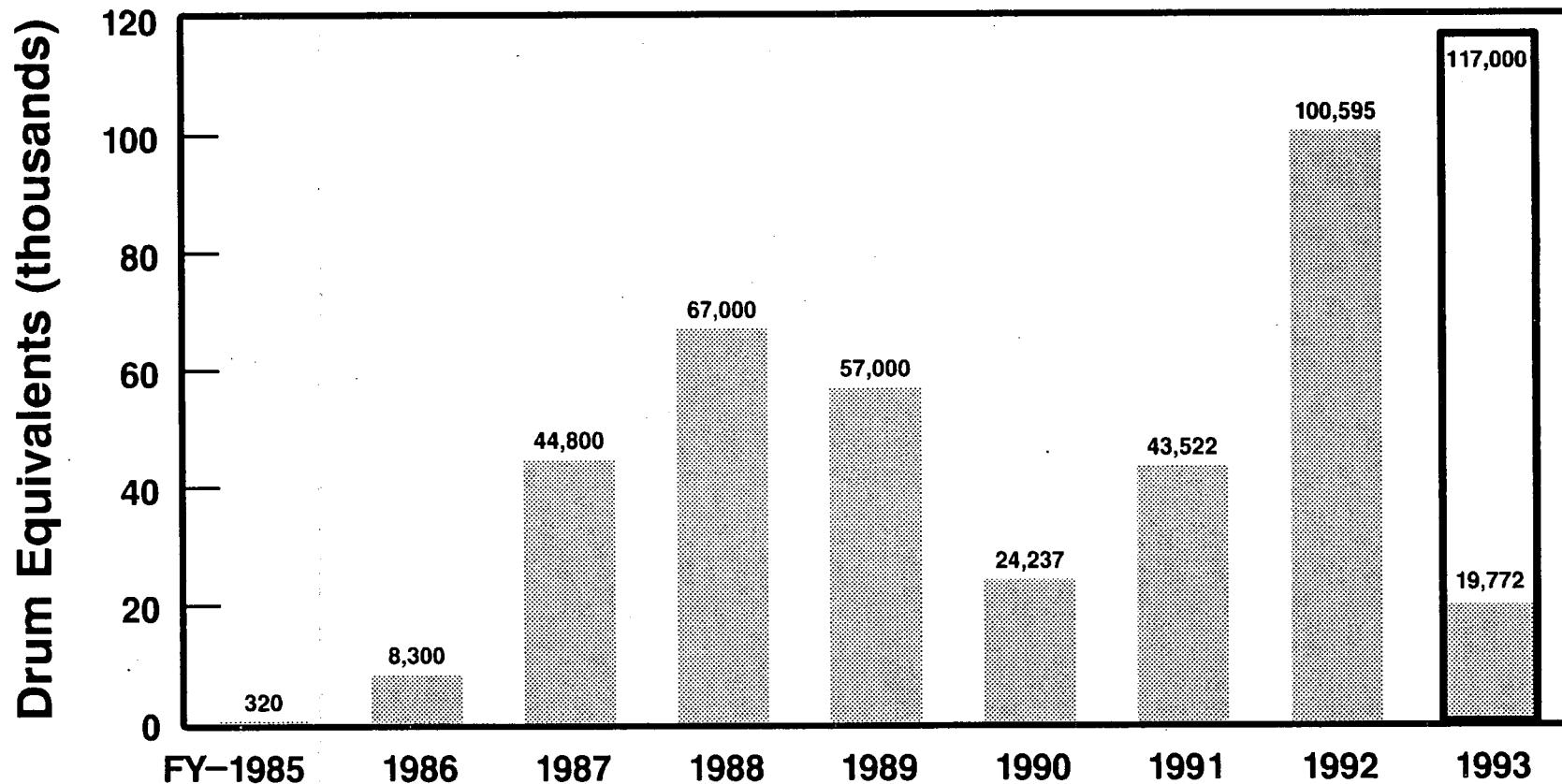
- **Buildings 64 and 68 Completed in FY'92**
- **Building 67 to be Completed by 2/28/93**

**Status as of 1/31/93:**

- **2,910 Containers Overpacked**
- **3,094 to be Overpacked**
- **Building 65 Scheduled for Fall of '93**

# WASTE SHIPMENTS

## TOTAL DRUM EQUIVALENT SHIPMENTS



Drum Equivalent	320	8,300	44,800	67,000	57,000	24,237	43,522	100,595	19,772 *
Cumulative Total	320	8,620	53,420	120,420	177,420	201,657	245,179	345,774	365,546 *

\* as of February 16, 1993

# WASTE SHIPMENTS

- FY'93 Goal: 117,000 DEs
- Accelerated Goal FY'93 181,000



# **OTHER WASTE DISPOSAL**

## **Contracts to Ship Residues and Metal**

- **Scrap Metal**
  - **Vendor Mobilized**
  - **Shipments Started Week of 2/8/93**
- **Drummed Residues**
  - **Vendor Mobilizing**
  - **Shipments to Start Week of 2/22/93**

# **COMMUNITY MEETING**

## **Update of RI/FS and Removal Action Activities**

# OPERABLE UNIT 1

- **RI/FS Status**
- **Removal Actions**
  - **Pit 5**

# **OPERABLE UNIT 2**

- **RI/FS Status**
- **Removal Actions**
  - **Inactive Flyash Pile**

# **OPERABLE UNIT 3**

- **RI/FS Status**
  - **Accelerated Decontamination and Decommissioning**
- **Removal Actions**
  - **Plant 1 Ore Silos**
  - **Plant 1 Pad Upgrade**

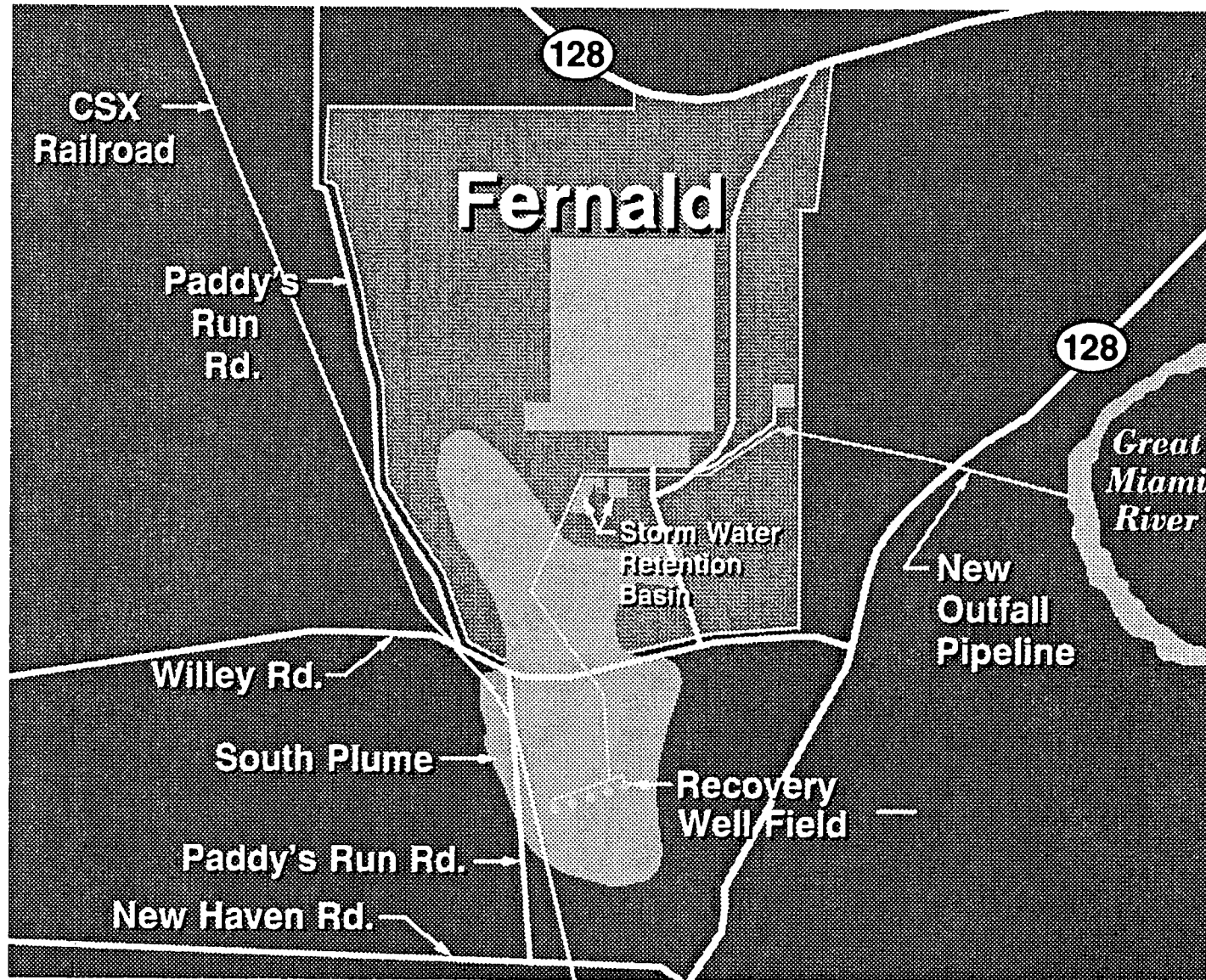
# **OPERABLE UNIT 4**

- **RI/FS Status**
- **Removal Actions**
  - **Bentonite Effectiveness**
  - **Decant Sump Tank**

# **OPERABLE UNIT 5**

- **RI/FS Status**
- **Removal Actions**
  - **South Plume**

# SOUTH GROUNDWATER CONTAMINATION PLUME REMOVAL ACTION #3







## **REMOVAL ACTION #1 CONTAMINATED WATER BENEATH FEMP BUILDINGS**

### **OBJECTIVE:**

- Minimize the Potential for Uranium-Contaminated Groundwater to Infiltrate the Underlying Aquifer from Perched Water Zones Located Beneath Some Production Buildings.

### **BENEFIT:**

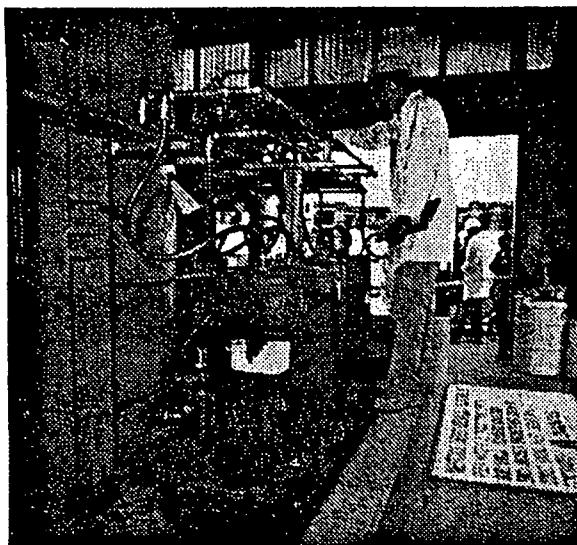
- Minimize the Potential for Movement of Contaminated Water in These Perched Water Zones.

### **ACTIVITIES:**

- Plant 8 Treatment System Continues to Remove Volatile Organic Compounds Prior to Treatment for Removal of Uranium and Subsequent Discharge to River.
- Pumping of Perched Groundwater In Progress at all Identified Locations. Pumping to Continue in This Manner Until Advanced Wastewater Treatment System is Operational in 1994.

### **SCHEDULE:**

**Pumping Ongoing Through March 30, 1994**



**PLANT 8 VOC TREATMENT SYSTEM**



## **REMOVAL ACTION #2 WASTE PIT AREA RUNOFF CONTROL**

### **OBJECTIVE:**

- Reduce Potential Groundwater Contamination from Contaminated Stormwater Runoff.

### **BENEFITS:**

- Reduce or Mitigate the Release of Uranium and Other Contaminants to Paddy's Run.
- Mitigate the Potential for Contaminants from Surface Water from Reaching the Underlying Aquifer.

### **ACTIVITIES:**

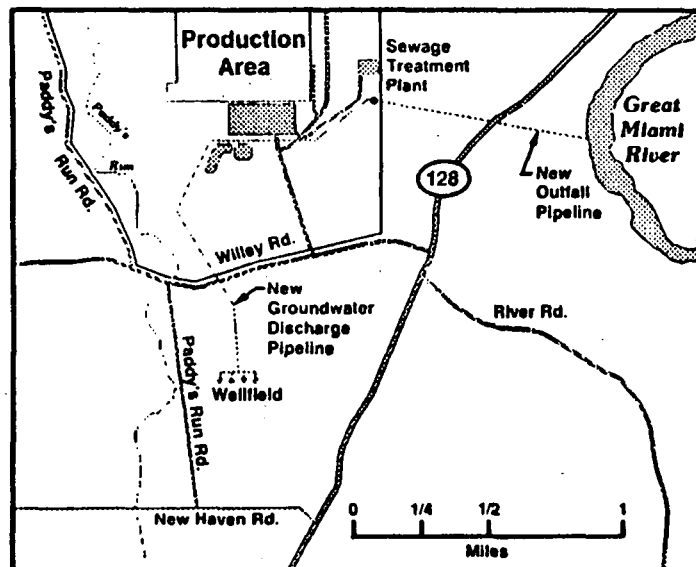
- Collection of Runoff in the Waste Pit and Adjacent Areas Through the Installation of Trenches and Dikes.
- Treatment of Runoff in Existing FEMP Wastewater Treatment Facilities.

### **SCHEDULE:**

**Project Completed July 30, 1992. System Operational.**



## REMOVAL ACTION #3 SOUTH GROUNDWATER CONTAMINATION PLUME



**PART 2 - PUMP AND DISCHARGE SYSTEM**

### OBJECTIVE:

- Protect Public Health by Limiting Access to the Use of Uranium-Contaminated Groundwater in an Area South of the Fernald Site. The Removal Action is Broken into Five Parts.

### BENEFITS:

- 1) Provide Alternate Water Supply to Affected Industry; 2) Extract and Pump Contaminated Groundwater Back to the Fernald Site for Monitoring, Possible Treatment, and Discharge to the Great Miami River; 3) Construction and Operation of Interim Advanced Wastewater Treatment System; 4) Groundwater Modeling and Controls to Prevent the Use of Contaminated Groundwater, and 5) Additional Groundwater Investigations in the Vicinity of the South Plume.

### ACTIVITIES:

- Pipeline Construction Activities In Progress.

### SCHEDULE:

Part 1 was Completed on Schedule in December 1992

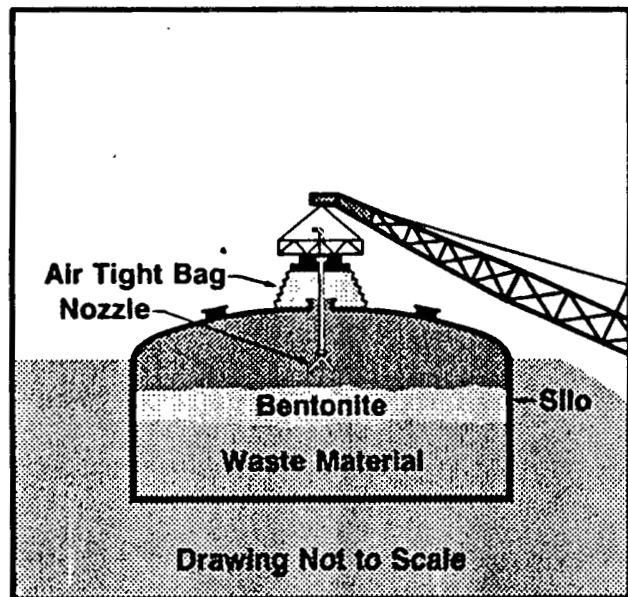
Part 2 on Schedule for Completion in August 1993

Part 3 is Complete and Operational

Parts 4 and 5 are Ongoing



## REMOVAL ACTION #4 SILOS 1 AND 2



### OBJECTIVE:

- Reduce Chronic Radon Emissions from Silos 1 and 2.

### BENEFITS:

- Decrease, Mitigate, or Otherwise Control the Threat of a Release in the Event of a Silo Dome Collapse.
- Reduce Potential Radon Exposure of Both On-Site and Off-Site Personnel.

### ACTIVITIES:

- This Removal Action Consisted of Placing Bentonite Clay Over the Top of the Residues Contained in Each Silo.

### SCHEDULE:

This Removal Action was Completed in November 1991. DOE is Proceeding with Statistical Evaluation of Available Data to Demonstrate the Effectiveness of the Bentonite. This Data will be Provided to the U.S. EPA as it Becomes Available.



## REMOVAL ACTION #5 K-65 DECANT SUMP TANK

### OBJECTIVE:

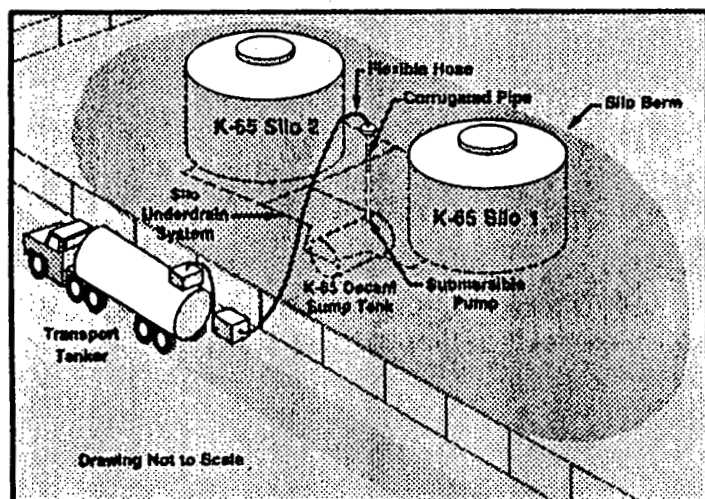
- Reduce the Potential for Leakage of Contaminated Water into Surrounding Soils.

### BENEFIT:

- Liquid was Analyzed at Off-Site Laboratory to Determine Proper Treatment and Disposition.

### ACTIVITIES:

- Approximately 8,000 Gallons of Water was Removed, Analyzed, and Treated Through Existing Wastewater Treatment Systems at Fernald Prior to Discharge to the Great Miami River. The K-65 Decant Sump Tank was Used to Collect and Store Liquid that Drained from the K-65 Silos as the Slurried Material Settled.



LOCATION OF K-65 DECANT SUMP TANK

### SCHEDULE:

This Removal Action was Completed in April 1991



## **REMOVAL ACTION #6 WASTE PIT 6 RESIDUES**

### **OBJECTIVE:**

- **Eliminate the Potential for Airborne Emissions Due to Wind Erosion from the Fernald Site Waste Pit Area.**

### **BENEFITS:**

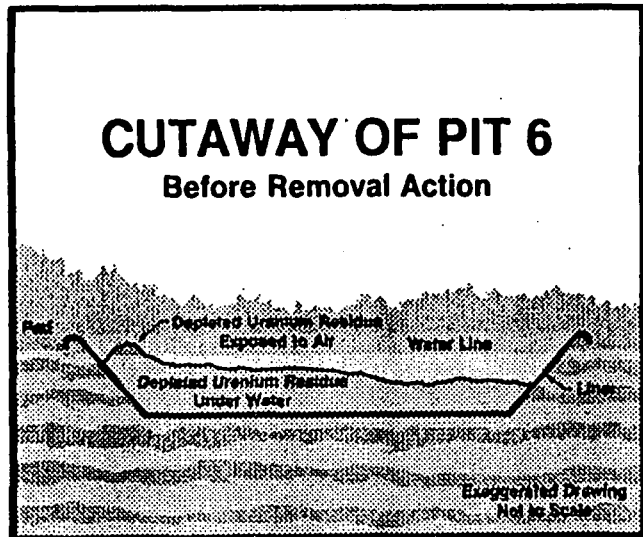
- **Mitigate Source of Potential Airborne Fugitive Dust Emissions.**

### **ACTIVITIES:**

- **A Mound of Approximately 4,800 Square Feet of Dried Radioactive Waste was Submerged Below the Water Line and Distributed Evenly Below the Surface of the Water. The Mound Contained Process Residues, Asbestos, Depleted Slag, Green Salt, and Filter Cake from Past Operations at the Fernald Site.**

### **SCHEDULE:**

**This Removal Action was Completed in December 1990**





## **REMOVAL ACTION #7 PLANT 1 PAD CONTINUING RELEASE**



### **OBJECTIVE:**

- Upgrade Existing Plant 1 Pad Plus Provide 80,000 Square Feet Additional Pad Area.

### **BENEFIT:**

- Control the Potential for Migration of Contaminants from Materials Stored on the Pad into Surrounding Environmental Media.

### **ACTIVITIES: Three Phase Approach:**

- Phase I- Implement Run-on/off Control Measures.
- Phase II- Installation of 80,000 Square Feet of New Covered and Controlled Concrete Storage Pad.
- Phase III- Upgrade 375,000 Square Feet of the Existing Plant 1 Storage Pad, Enclose 22,000 Square Feet Beneath a Sprung Structure.

### **SCHEDULE:**

**Phases I and II are Complete**

**Phase III is on Schedule for Completion by February 19, 1995**



## **REMOVAL ACTION #8 INACTIVE FLYASH PILE CONTROL**



### **OBJECTIVE:**

- **Prevent Unauthorized Intrusion/Access into Radiological Surface Soil Contamination Area.**

### **BENEFITS:**

- **Minimization of Potential Risk to Human Health.**

### **ACTIVITIES:**

- **This Removal Action Consisted of Posting of Warning Signs and Installing a Chain Barrier Around the Perimeter of the Inactive Flyash Pile/Other South Field Disposal Areas.**

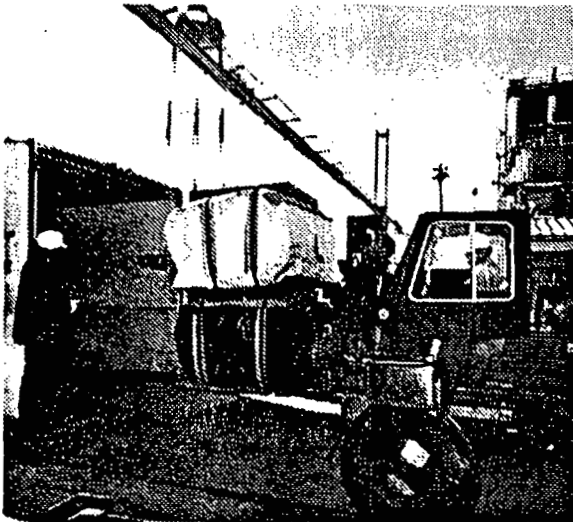
### **SCHEDULE:**

**This Removal Action was Completed in December 1991**





## **REMOVAL ACTION #9 REMOVAL OF WASTE INVENTORIES LOW LEVEL WASTE MANAGEMENT**



### **OBJECTIVE:**

- Off-Site Disposition of Drummed Low Level Waste (LLW).

### **BENEFIT:**

- Reduces Environmental Risk Due to the Potential of LLW Materials Stored in Containers to Migrate into the Air and Surface Waters, Reduces Worker Exposure to Hazardous Substances, Shifts Manpower Focus to Remedial Tasks.

### **ACTIVITIES:**

- Encompass Existing Waste Shipping and Management Procedures for Drummed LLW from Backlog and Construction Wastes.

### **SCHEDULE:**

**Submitted Updated Procedures June 1992**

**Submit Updated Procedures June Annually**

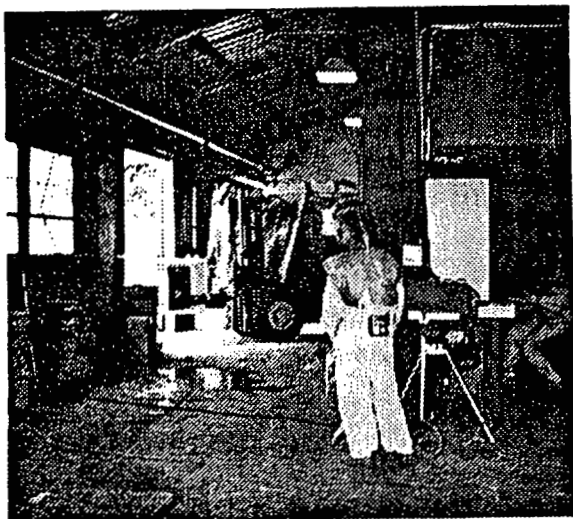
**Ongoing Removal of Waste Inventories Through September 30, 1997**



## **REMOVAL ACTION #9**

### **REMOVAL OF WASTE INVENTORIES**

#### **THORIUM MANAGEMENT**



#### **OBJECTIVE:**

- Overpacking and Off-Site Removal of Drummed Thorium Material.

#### **BENEFIT:**

- Mitigates Potential for Releases from the Drummed Thorium Material, Reduces Stored Waste Inventories and Worker Exposures.

#### **ACTIVITIES:**

- Encompass Existing Shipping and Management Procedures for Thorium Materials that are Ready to be Shipped and those which Require Overpacking for the Off-Site Disposition, Approximately 10,600 Drum Equivalents.

#### **SCHEDULE:**

**Submitted Updated Procedures June 1992**

**Submit Updated Procedures June Annually**

**Ongoing Removal of Waste Inventories Through September 30, 1994**



## **REMOVAL ACTION #10**

### **ACTIVE FLYASH PILE CONTROLS**

#### **OBJECTIVE:**

- **Control Wind and Water Erosion of Active Flyash Pile.**

#### **BENEFITS:**

- **Minimize Wind and Surface Water Erosion.**
- **Reduce Fugitive Dust Emissions.**
- **Protective of Human Health and Safety.**

#### **ACTIVITIES:**

- **This Removal Action Consisted of a Combination of Control Measures to Minimize Fugitive Dust Emissions and Stormwater Runoff. A Silt Fence was Installed Around the Base of the Pile to Mitigate Stormwater Runoff and Wind Barriers were put in Place to Mitigate Wind Erosion. Minor Grading and Compaction were Conducted and a Chemical Spray was Applied to the Surface to Provide Stabilization.**

#### **SCHEDULE:**

**This Removal Action was Completed in June 1992**



## **REMOVAL ACTION #11**

### **PIT 5 EXPERIMENTAL TREATMENT FACILITY**

#### **OBJECTIVE:**

- Reduce the Spread of Contamination and Exposure of Personnel to ETF Wastes.

#### **BENEFITS:**

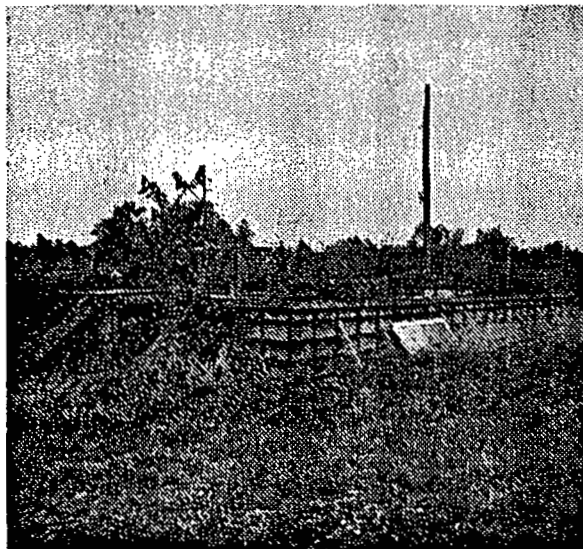
- Reduce or Mitigate the Release of Waste Materials Contained in the ETF to the Surrounding Area.
- Reduce or Mitigate the Potential for Exposure of Personnel through Removal of the ETF.

#### **ACTIVITIES:**

- Remove and Dispose of the Vegetation Surrounding the ETF.
- Collect, Containerize, and Store Waste Material Contained Within the ETF Structure.
- Collect, Containerize, and Store Filter Bed and ETF Wooden Structure.
- Sample and Analyze the Soil Affected by the ETF.

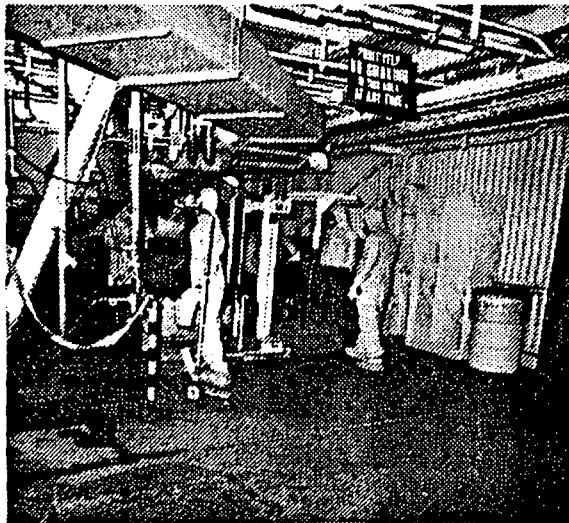
#### **SCHEDULE:**

**This Removal Action was Completed in March 1992**





## **REMOVAL ACTION #12 SAFE SHUTDOWN**



### **OBJECTIVE:**

- **Removal and Disposition of Uranium and Process Materials from Fernald Site Buildings.**

### **BENEFITS:**

- **Eliminates Source Term for Further Environmental Releases. Enhances ALARA Goals. Provides Necessary Preliminary Step for Preparation of the Systems for Subsequent Remedial Activities.**

### **ACTIVITIES:**

- **Document Ongoing Shutdown Activity which will Remove Uranium and Other Process/Raw Materials from Equipment and Lines in Areas of Formerly Used Processing Equipment in Plants 1, 2/3, 4, 5, 6, 9 and the Pilot Plant. Systematic, Plant by Plant Implementation of Safe Shutdown and Incorporation of Results Into OU3 RI/FS.**

### **SCHEDULE:**

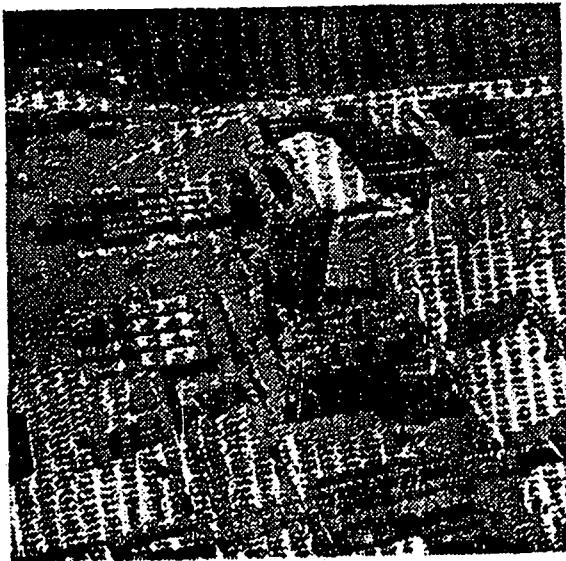
**Submitted Updated Procedures June 1992**

**Submit Updated Procedures June Annually**

**Ongoing Safe Shutdown Implementation Period Through September 30, 1995**



## **REMOVAL ACTION #13 PLANT 1 ORE SILOS**



### **OBJECTIVE:**

- **Dismantle the Plant 1 Ore Silos and Support Structure.**

### **BENEFITS:**

- **Eliminates Threat of Additional Material Releases.**
- **Eliminates Safety Hazard Due to Structural Deterioration of the Silos and Supporting Structure.**

### **ACTIVITIES:**

- **Remove, Containerize, Characterize, and Dispose of the Material Identified to Exist in Eight of the Silos. All 14 Silos at Plant 1 will be Dismantled Under this Removal Action.**

### **SCHEDULE:**

**Submitted Final Work Plan to U.S. EPA July 1992**

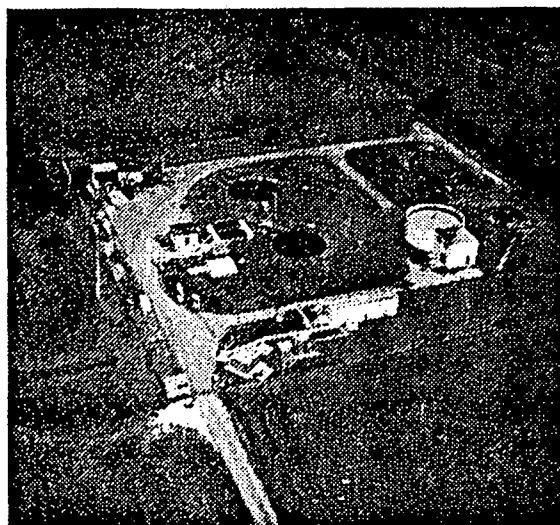
**Initiated Field Activities October 1992**

**Complete Removal Action December 1994**



## **REMOVAL ACTION #14**

### **CONTAMINATED SOILS ADJACENT TO SEWAGE TREATMENT PLANT INCINERATOR**



#### **OBJECTIVE:**

- **To Address Contaminated Soils with Elevated Levels of Uranium.**

#### **BENEFIT:**

- **Mitigates the Potential for Migration of Contamination.**

#### **ACTIVITIES:**

- **Remove and Dispose of Contaminated Soils in the Vicinity of an Out-of-Service Solid Waste Incinerator at the Sewage Treatment Plant.**

#### **SCHEDULE:**

**Completed Phase I (Walkover Survey) August 1992**

**Completed Phase II (Excavation and Verification Sampling) October 1992**

**Complete Phase III (Submit Interim Reports) April 1993**

**Phase IV (Submit Evaluation for Further Action) July 1993**



## **REMOVAL ACTION #15 SCRAP METAL PILES**



### **OBJECTIVE:**

- **Removal of Low-Level Radioactive Waste Scrap Metal Off-Site.**

### **BENEFIT:**

- **Eliminate Potential Air Emission Source and Reduce Releases to Surge Lagoon and Great Miami River by Eliminating Source Contamination to Surface Water Runoff.**

### **ACTIVITIES:**

- **Off-Site Removal, Treatment, and Disposition of 3,000 Tons of Recoverable Scrap Metal.**
- **Material Includes Approximately 1300 Tons of Scrap Copper and Other Small Metal Piles.**

### **SCHEDULE:**

**Submitted Final Work Plan to U.S. EPA June 1992**

**Complete Phase I March 1994**

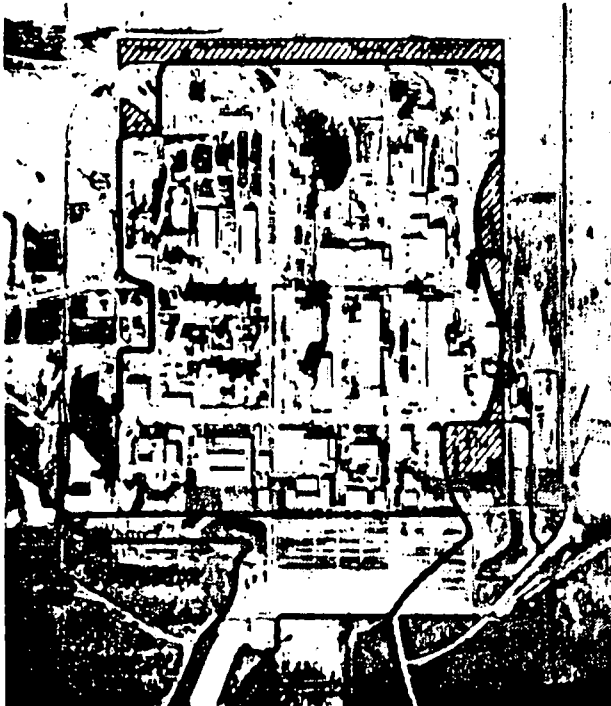
**Complete Phase II May 1995**





## **REMOVAL ACTION #16**

### **COLLECT UNCONTROLLED PRODUCTION AREA RUNOFF (NORTHEAST)**



#### **OBJECTIVE:**

- **Collect Uncontrolled Process Areas Runoff.**

#### **BENEFITS:**

- **Reduce or Mitigate the Release of Uranium and Other Contaminants to Paddy's Run.**
- **Mitigate Contaminants from Surface Water to Underlying Aquifer.**

#### **ACTIVITIES:**

- **Redirection of Subdrainage Areas and Collection of Runoff from Perimeter of Process Area.**

#### **SCHEDULE:**

**Submitted Work Plan to U.S. EPA March 2, 1992**

**Complete Removal Action August 30, 1993**



## **REMOVAL ACTION #17 IMPROVED STORAGE OF SOIL AND DEBRIS**



### **OBJECTIVE:**

- Install Tension Support Structures and Implement Controls to Integrate and Improve Soil & Debris Storage Facilities.

### **BENEFIT:**

- Minimize Potential Contaminant Migration from Specific Storage Areas.

### **ACTIVITIES:**

- 1 Define Soil and Debris Waste Streams.
- 2 Revise Existing Procedures for Management and Control of Waste Streams.
- 3 Identify Suitable Areas for Storage of Soil and Debris Waste Streams.
- 4 Develop Technology or Engineering Approaches for Handling of Waste Streams.
- 5 Evaluate the Engineering Approaches Considered with Respect to Appropriate ARARs.
- 6 Establish Current and Future Policy with Respect to Soil and Debris Waste Streams for the FEMP.

### **SCHEDULE:**

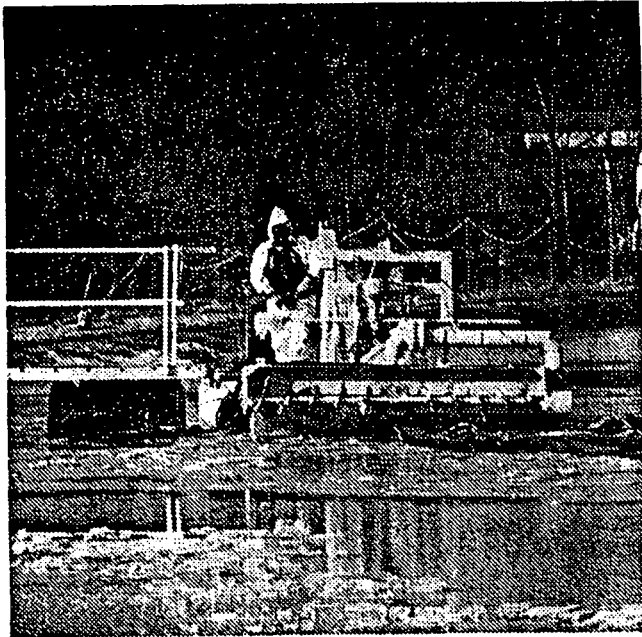
Submitted Final Work Plan to U.S. EPA August 1992

Provided Phase I Storage Upgrades for Existing Piles July 1992

Complete Construction (Storage Facilities) March 1995



## **REMOVAL ACTION #18 CONTROL EXPOSED MATERIALS IN PIT 5**



### **OBJECTIVE:**

- **Control Surface Emission of Radionuclide Contamination from Waste Pit 5.**

### **BENEFITS:**

- **Reduce or Mitigate Worker Exposure and Exposure to Off-Site Residents Due to Airborne Radionuclide Contamination.**

### **ACTIVITIES:**

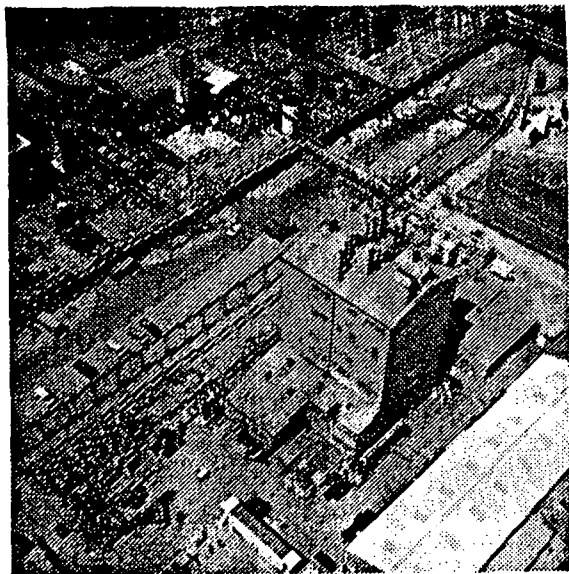
- **Evaluated Alternatives for Emission Control and Selected Preferred Approach.**
- **Prepared Work Plan Using Preferred Alternative (Dredging) and Obtained EPA Approval.**

### **SCHEDULE:**

**This Removal Action was Completed in December 1992**



## **REMOVAL ACTION #19 DECONTAMINATION AND DISMANTLING OF PLANT 7**



### **OBJECTIVE/BENEFIT:**

Plant 7 is an Activity to Support the DOE Integrated Technology Demonstration Program and its D&D will also Serve as a Pilot Program for Future Remedy of the Site.

### **ACTIVITIES:**

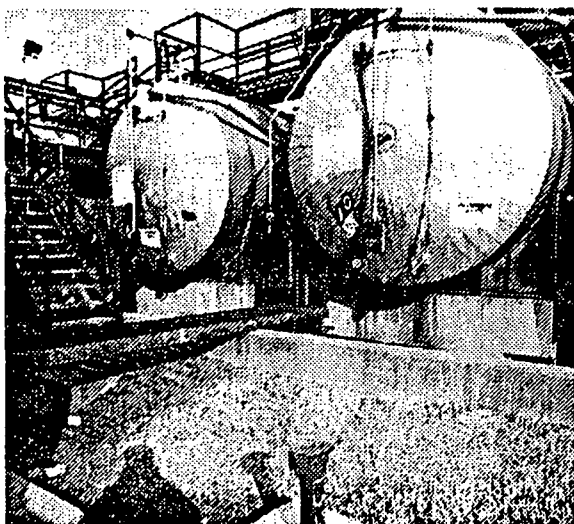
Decontaminating and Dismantling Operations will be Conducted. After Equipment Removal, the Building Demolition and Removal will begin. The Major Activities Anticipated Include: 1) Relocation of Stored Drummed Material, Combustibles, or Hazardous Waste; 2) Removal of Asbestos Insulated Pipes; 3) Provision for Surface Decontamination of Interior Components; 4) Termination of Utility Services; 5) Removal of the Transite Surface Panels; and 6) Dismantling of the Structural Steel.

### **SCHEDULE:**

Submit Draft Work Plan to U.S. EPA April 1993



## **REMOVAL ACTION #20 STABILIZATION OF UNH INVENTORIES**



### **OBJECTIVE:**

- Remove and Prepare for Safe Storage 220,000 Gallons of Acidic UNH Currently Stored in 21 Tanks in and Around Plant 2/3.

### **BENEFIT:**

- Mitigate Potential Releases to Environment.

### **ACTIVITIES:**

- Neutralize Solutions, Precipitate the Material, Filter the Precipitate, and Package the Resulting Filter Cake in Double Containment for Safe Storage.

### **SCHEDULE:**

**Completed Systems Integrity Testing February 1992**

**Commenced Processing Material July 1992**

**Complete Processing Material Spring 1993**



## **REMOVAL ACTION #21 EXPEDITED SILO 3**

### **OBJECTIVE:**

- **Eliminate the Potential for Release of Radioactive Material to the Environment from the Silo 3 Dust Collector and Hopper Assembly.**

### **BENEFIT:**

- **All Pathways are Permanently Sealed to Prevent the Release of Silo 3 Contents to the Atmosphere. Eliminated the Source of Potential Airborne Emissions.**

### **ACTIVITIES:**

- **The Three-Piece Assembly was Removed from Atop the Silo Dome and Lowered Directly into a Sea/Land Container for Disposal. Piping and Associated Equipment Originally Used to Place Waste in the Silo were also Removed and Prepared for Shipment.**

### **SCHEDULE:**

**This Removal Action was Completed in January 1992.**



## **REMOVAL ACTION #22**

# **WASTE PIT AREA CONTAINMENT IMPROVEMENT**



### **OBJECTIVE:**

- **Minimize the Potential for Wind or Water Erosion of Contaminated Materials from Access Roads and Exposed Surfaces in the Waste Pit Area.**

### **BENEFIT:**

- **Mitigate Sources of Potential Airborne Dust Emissions and Contaminated Surface Water Runoff.**

### **ACTIVITIES:**

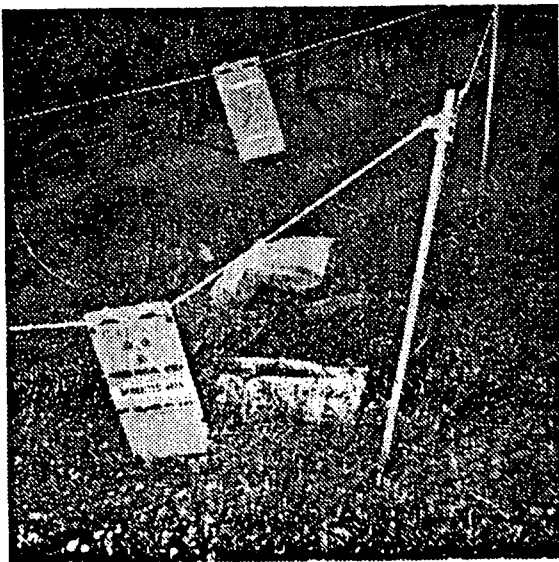
- **This Removal Action will include Revegetation (Seeding) of the Pit Area for Erosion Control, and Regrading of Some Existing Stormwater Ditches in the Pit Area to Promote Positive Drainage.**

### **SCHEDULE:**

**Revised Work Plan Submitted to U.S. EPA in November 1992**



## **REMOVAL ACTION #23 INACTIVE FLYASH PILE**



### **OBJECTIVE:**

- **Removal and Disposition of Isolated Areas of Radiological Surface Contamination in the Inactive Flyash Pile/Other South Field Disposal Areas.**

### **BENEFIT:**

- **Mitigate Potential Migration of Contaminants.**

### **ACTIVITIES:**

- **A Small Amount of Debris Including Soil and Transite Material was Removed from the Inactive Flyash Pile and Placed in Appropriate Containers for Storage Pending Final Disposition.**

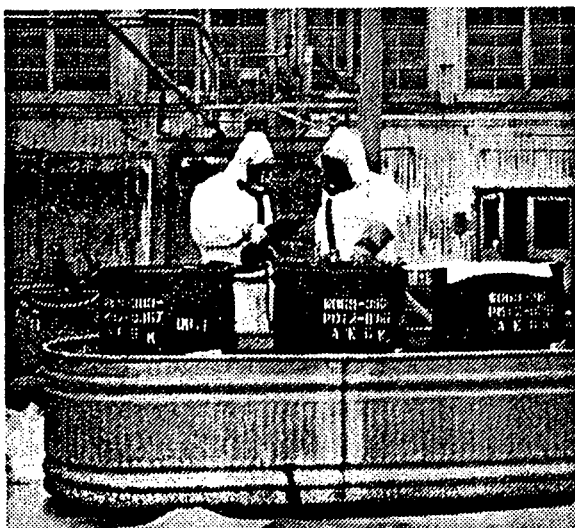
### **SCHEDULE:**

**This Removal Action was Completed in June 1992**





## **REMOVAL ACTION #24 PILOT PLANT SUMP**



### **OBJECTIVE:**

- **Remove the Sump and its Liquid and Sludge Containing High Concentrations of Metals.**

### **BENEFIT:**

- **Mitigate Source of Potential Environmental Releases.**

### **ACTIVITIES:**

- **Pump-out Accumulated Liquid and Sludges, Removal of the Sump Tank, Identification and Removal of Contaminated Soils Resulting from its Operation. A Total of 635 Gallons have been Pumped Out In Four Separate Operations So Far.**

### **SCHEDULE:**

**Submitted Draft Final Work Plan to U.S. EPA on October 14, 1992**



## **REMOVAL ACTION #25**

### **NITRIC ACID TANK CAR AND AREA**

#### **OBJECTIVE:**

- **Remove Residual Contents Followed by Decontamination and Disposition of the Tank Car.**

#### **BENEFITS:**

- **Mitigate Source of Potential Contamination Releases to the Environment.**
- **Initiate RCRA Closure Activities for Designated HWMU.**

#### **ACTIVITIES:**

- **Remove Residual Contents and Decontaminate and Disposition the Tank Car, Characterize Soils in the Area for Contaminants Related to the Tank Car and Determine if Subsequent Soil Excavation will be Required.**

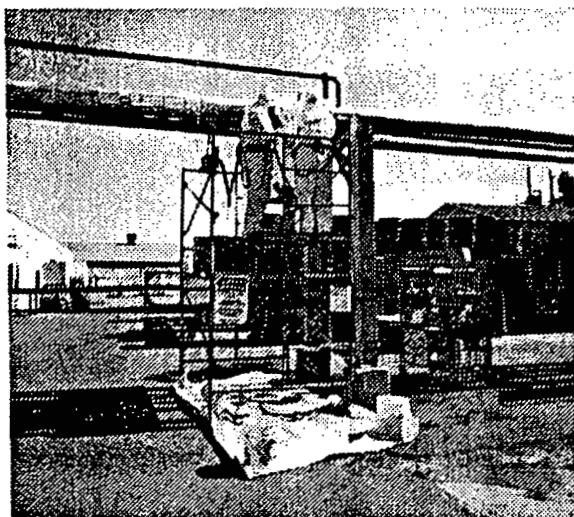
#### **SCHEDULE:**

**Submitted Work Plan to U.S. EPA on October 30, 1992**

**Final Draft Work Plan Submitted to U.S. EPA In December 1992**



## **REMOVAL ACTION #26 ASBESTOS REMOVALS (ASBESTOS PROGRAMS)**



### **OBJECTIVE:**

- **Manage Ongoing Asbestos Abatement Activity at the Fernald Site.**

### **BENEFIT:**

- **Mitigate the Potential for Contaminant Release and Migration.**
- **Reduce Potential for Worker Exposure to Respirable Asbestos.**

### **ACTIVITIES:**

- **Document Existing Conditions.**  
**Ongoing Abatements Include:**
  - **In-Situ Repairs**
  - **Encasement**
  - **Encapsulation**
  - **Removal**

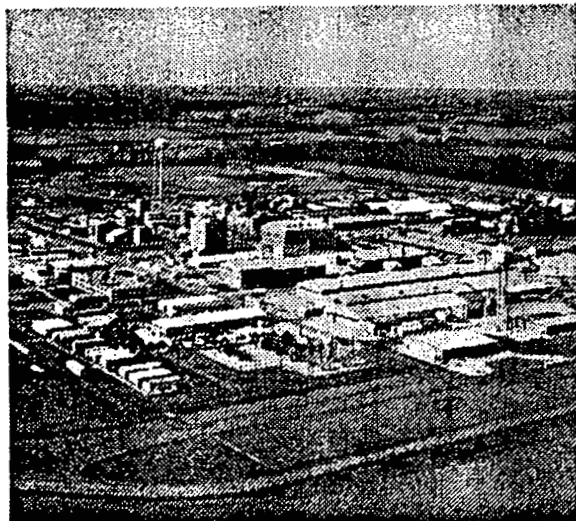
### **SCHEDULE:**

**Submit Annual Work Procedures to EPA Annually Each May**



## **REMOVAL ACTION #27**

### **MANAGEMENT OF CONTAMINATED STRUCTURES AT FERNALD**



#### **OBJECTIVE:**

- Establish a Broad-based Removal Action to Support the Implementation of Clean-up Actions at Fernald's Contaminated Facilities.

#### **BENEFIT:**

- Mitigate the Potential Threat to Human Health and Environment.

#### **ACTIVITIES:**

- Submit Engineering Evaluation/Cost Analysis (EE/CA) to Support Proposed Removal Actions for Managing Contaminated Structures/Facilities.

#### **SCHEDULE:**

**Submitted EE/CA to U.S. EPA December 16, 1992**